

The Context and Structure of Ahu Kihikihi Rau Mea

Charles M. Love

CULTURAL CONTEXT

Scholars of the prehistoric cultural process on Easter Island know that Easter Island's *ahu* (ceremonial centers) show that, through time, a sudden major change took place in the architecture of its religious structures. This implies rather strongly that either a societal revolution or a religious revolution took place, or perhaps both. Revolutions in religion are not uncommon in the world, but often are themselves a result of chaos caused by other outside factors. If debate can be resisted over that, in Polynesia, Hawai'i had a revolution in its religion post-contact, but pre-missionary era. Easter Island seems to have had

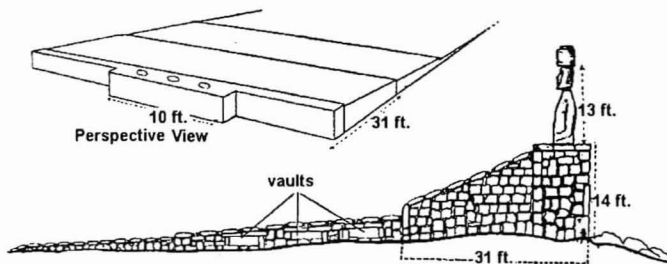
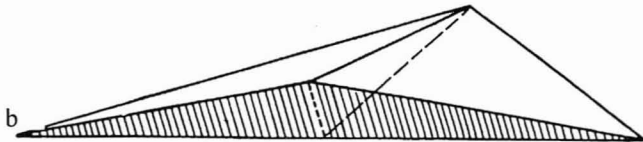


Figure 1. Routledge's image *ahu*, but showing vaults (burial areas) normally found in late burials in semi-pyramidal *ahu*.



a



b

Figure 2. Semi-pyramidal *ahu* a) photo, b) drawing (both from Routledge 1919, Figs. 39 and 40).

a revolution in its religion too, and it is clearly pre-European-contact. The cause is still very much problematical and debatable, though the archaeological evidence for it is quite clear. This article explores the evidence from one *ahu* and at least two stages in the revolution's development.

Discussion of the archaeology surrounding the transition from the enormous *moai*-bearing *ahu* to the smaller semi-pyramidal *ahu* is limited, but has found its way into the literature. Historically, Paymaster Thomson (1889) was the first to make a rough inventory of Easter Island's many structures, and recognized many different forms, although he reported them rather poorly. But it was Katherine Routledge (1919) who first systematically described Easter Island's two main forms of ceremonial constructions. Routledge classified *ahu* into categories: image bearing (Figure 1), semi-pyramidal (Figure 2), rectangular, and several others, and defined them by various characteristics.

Routledge felt that the semi-pyramidal form was more recent than the image-bearing *ahu*. Métraux (1940:271) comments on Routledge's description but probably mistakenly says:

"However, there is no proof that semi-pyramidal *ahus* are of a more recent type than the image *ahus* or that they were all built in recent times. Their form might as well be considered the prototype of the big *ahus*."

Métraux probably didn't have time to examine many of the semi-pyramidal *ahu* closely, or the island-wide pattern of them. Examples where the semi-pyramidal form is overbuilt by a *moai*-bearing structure have not yet been reported. In every case where the two are together, the semi-pyramidal *ahu* have been superimposed over the ruins of the image *ahu*, or a rebuilding of parts of the image *ahu* into a semi-pyramidal *ahu* has occurred (Love 1993:105). The author has carefully investigated 27 *ahu*. Of these, Kihikihi Rau Mea, Mahatua, Tetenga, Parai A Ure, Vai Mata, Maitake Te Moa, the west wing of Te Pito Te Kura, Maihiku, Hanga Hahave, the west half of Ahu Vaihu, possibly Ahu Koe Hoko, and one labeled by McCoy (1975) as 5-72 (Love 1990) are all *moai*-bearing *ahu* (or in the case of 5-72, probably destined to be so) which have been overbuilt with a semi-pyramidal architecture. Mulloy (1970), in restoring Ahu Vai Uri, had to remove the original stones of the semi-pyramidal structure only to discover that the original *moai*-bearing *ahu* had been deliberately destroyed, seaward wall blocks rearranged, and the already fallen *moai* sunk into the original ramp architecture. There are quite a number of other *ahu* that illustrate this same relationship though they remain uninvestigated. Routledge (1919:172) states that they total thirteen and the number of semi-pyramidal structures totals about 45. Certainly more exist than that. Carlyle Smith of the Norwegian Expedition even excavated one though he seems not to have recognized it at the time, that is, the west wing of Ahu Te Pito Te Kura (Smith 1961:196-197). He also excavated portions of Ahu Tepeu, another (originally) *moai*-bearing *ahu* structure, which had some semi-pyramidal "overbuilding".

The change in the islander's religious architecture appears to be sudden if not catastrophic and not caused from within the

religion itself, but by larger circumstances, that is, the collapse of island social structure. The larger causes of the collapse have been best analyzed and described by Mulloy (1976), and many authors have since taken up the cause (Bahn & Flenley 1992). Only legendary elements of the exact cause serve as explanations from the historical islander perception of what happened. If there were a transitional phase of new *ahu* construction, as if the change in religious values were somewhat gradual and not catastrophic, say over a 50-year period, what might the transitional structures have looked like?

Routledge's historic accounts from islanders as to the functions of these two major types of *ahu* seem, in most cases, to be somewhat misty recollections as to what the totality of the earlier religion actually was, though with excellent clots of detail. Few accounts touch long on what the former religion became.

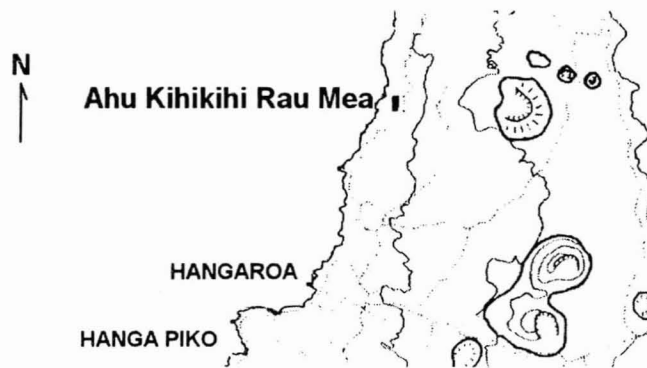


Figure 3. A map showing the location of Ahu Kihikihi Rau Mea north of the village of Hangaroa.



Figure 4. Northwest view of Ahu Kihikihi Rau Mea.

The Easter Island ceremonial structure Ahu Kihikihi Rau Mea is not a prehistoric edifice most tourists would want to visit (Figures 3 and 4). However, it is one of at least a dozen structures on the island worthy of examination by hardcore archaeologists, architects, and historians interested in what appears to be a transition phase, the prehistoric revolution in Easter Island's society and religious architecture. North of Easter Island's only town, Hangaroa, Ahu Kihikihi Rau Mea is one of the best preserved archaeological sites whose construction was most likely involved in illustrating the transition from an earlier religious architectural tradition, to the problematical but probably catastrophically-caused new tradition. A case can

be made that it had at least one, but perhaps two, major *moai*-bearing structures, and then at least two more phases in constructing semi-pyramidal structures over the ruins. Today, the name Ahu Kihikihi Rau Mea appears on the maps (Cristino et al. 1981).

From her 17 months on the island, Routledge is also the first to describe what appears to be an earlier collapse of Easter Island's cultural unity, which resulted in a near constant state of small scale warfare and cannibalism before European contact. Though she did not put this quite so succinctly, it has become a paradigm in archaeological thought about Easter Island's prehistory, and, relying heavily upon Routledge, it is repeated in the Norwegian expedition's conclusions (Heyerdahl 1961: 498) and in Mulloy (1976). In any case, this prehistoric change brought about a transition from the traditional construction of large image bearing ceremonial structures, to a new and suggestively more socially confined-building of comparatively tiny, perhaps even family or individualized *ahu*. Instead of statues surmounting the structure, small piles of rock perched on the axis, even apex, of these structures may have served the religious function originally carried out by the *moai*. Cook (1777: 296) says, with acuity:

"Besides the monuments of antiquity, which were pretty numerous, and no where but on or near the sea coast, there were many little heaps of stones, piled up in different places, along the coast. Two or three of the uppermost stones in each pile were generally white; perhaps always so, when the pile is complete. It will hardly be doubted that these piles of stone had a meaning. Probably they might mark the place where people had been buried, and serve instead of the large statues."

Routledge (1919:171) called the piles of stone with white coral pieces on top *pera*, but the term *pipi horeko* (a possible misnomer) has also been used and is still used on the island today (see possible discrepancies in Englert 1948:485; 1970:133). Small pieces of white, beach-eroded rounded coral usually marks these places.

In an era of warfare that saw the toppling of the *moai* from the lineage-based and district-based *ahu* structures, these *pipi horeko* may have been an attempt to retain the culture-based notions that *mana* can be kept, maintained, and eventually transferred to a family structure, a district structure, or a distinct locality. The term *pera* may refer to a location wherein a family has *rights* to remember a dead ancestor.

The majority of the semi-pyramidal *ahu* do not have associated *moai*. However, a number of them recognized by Routledge (1919), Englert (1948; 1970), Mulloy (1970) and Love (1993), seem to be in a transition phase of construction in which original image-bearing *ahu* had been overbuilt at a later date with the semi-pyramidal form.

RECYCLING OF CONSTRUCTION ELEMENTS

Prehistoric recycling of image-bearing *ahu* constructional elements is normal and demonstrable in features as diverse as *umu tahu* (earth oven stone slab liners) and *hare paenga* (prehistoric house foundations) to Ahu Tepeu, Ahu Nau Nau,

and many others.

Historically, using parts of unnamed *ahu* to reconstruct present *ahu* during archaeological projects nearer Hangaroa in the last 35 years is especially evident. The greater purpose, basically, was to attract tourism, but which *ahu* were recycled does not appear in the published archaeological accounts. A good example is the inland line of the rebuilt central platform *ahu paenga* of Ahu Ko Te Riku which includes at least 3 types of stone, some originally fitted for other *ahu*. Replacement of *ahu* structural elements as archaeologists knew them then, had to be done for accuracy in the reconstruction because the original *ahu paenga* of these central platforms and those of a lot of other *ahu* had been recycled for house foundations in Hangaroa, Mataveri, and elsewhere. In addition, whole statues had been removed for collections in foreign museums.

For a century, local *moai* have been cut up for *moai* statuettes and recycled for the "tourist market" and sold to the yearly supply ship's crew. This practice continued into the 1980's. Thus, a number of statues are missing from the Hangaroa area as well as others from a variety of *ahu*, including Ahu Heki'i. Interestingly, certain statues in the Hangaroa area were never cut up and recycled for the saleable market, suggesting a cultural preference for those that were recycled. A possible research project awaits an eager graduate student slave willing to converse with the remaining people who might know some of the local *moai* history.

THE STRUCTURE

The map of Ahu Kihikihi Rau Mea (Figure 6) shows bed-rock, the blocks composing the original seaward wall, burials, potential burials, and areas into which intrusions and other disturbances have been made (including open tomb portals), *Moai* and *moai* fragments and a pavement of either small *poro* or flat pavement slabs. Large *poro*, normally occurring on *moai*-bearing *ahu*, were found seaward of the area included in the map. Importantly, small *poro*, meaning smaller than 40 cm were not mapped, though they were present in some quantity. Coral fragments that normally surmount a low pile of stones were present (referred to as *pipi horeko*) as were a few fragments of red scoria. The somewhat smooth surface of the semi-pyramidal structure has been stylized save for larger stones or other important features, and half circles or cusps have been used to connote a rising elevation toward the axis of the structure. A cleared plaza extended inland for at least 30 meters, and is truncated on the north by a comparatively young lava flow from Hiva Hiva, and bounded on the inland side by a lobe of the same flow.

A small *poro* pile was located 15 m landward of the south wing of the structure, and potential cave locations were noted. An unmapped auxiliary structure lies about 50 meters seaward of the south wing and may be just a large adaptable *manavai*. Some of the stones suggest they actually came from Ahu Kihikihi Rau Mea, in which case they are recycled. If this line of stones is originally associated with Ahu Kihikihi Rau Mea as an auxiliary structure, then the original *ahu* structure is in the same class as a number of other rather large *moai*-bearing *ahu*: Tarakui, Akahanga, Tepeu, Heki'i, Hanga Hahave, and others, all

of which have separate structures, usually *moai*-bearing, off to the left of the left wing as one faces the sea from the plaza.

THOMSON'S OBSERVATIONS OF 1886

Importantly, Paymaster Thomson (1889:501-502) was traveling northward along the west coast of the island in his inventory of prehistoric structures. The most relevant descriptions for the *ahu* in the vicinity of "Ahu Kihikihiraumea" during his visit in 1886 are as follows:

Platform No. 8 - Called "Anaoraka"; 95 feet long and 8 feet wide and 7 feet high. Remarkable for the large stones that support the sea face, the largest of which measures 6 feet 9 inches high and 4 feet 7 inches wide. Four images have fallen upon their faces upon the inboard side. Only a pedestal stone remains in position, which is 5 feet 2 inches square by 2 feet 2 inches thick. (Figure 18).

Platform No. 9 - Called "Kihikihiraumea"; 186 feet long, 8 feet 10 inches wide, and 7 feet 5 inches thick. The central section of this structure contains stone so remarkably well cut and fitted together that it merits the accompanying sketch. Four images were found, which had been thrown

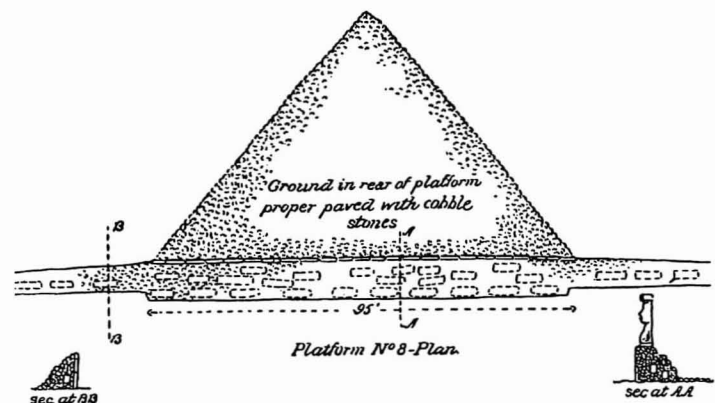


Figure 5. Drawing of Platform No. 8 (from Thomson 1889 Fig. 18).

down on their faces on the inboard side. These are in a fair state of preservation. From this ruin we obtained skulls, obsidian spear-heads, and stone tools.

Unfortunately, Thomson is well known among researchers for his errors in recording, and his use of dynamite to expose the interior at Ahu Tahira, one of the Vinapu *ahu* excavated by Mulloy (1961). There is no labeled "accompanying sketch" for platform number 9 "Anaoraka" in the publication. Thomson's next figure, Figure 18 (Figure 5), is labeled Platform No. 8 and the plan may or may not be that of Ahu Kihikihi Rau Mea. If not, which *ahu* is it? Englert (1948) does not provide an answer. The sketch shows a 95 feet long central platform outset and two profiles, of which one shows a cross section of the central platform with a statue and topknot facing the sea, backwards from the normal position. Ahu Kihikihi Rau Mea does not have an outset central platform as Thomson's sketch illustrates, either inland or seaward. Comparing Thomson's *ahu* dimensions for Platform No. 9, with Kihikihi Rau Mea's dimen-

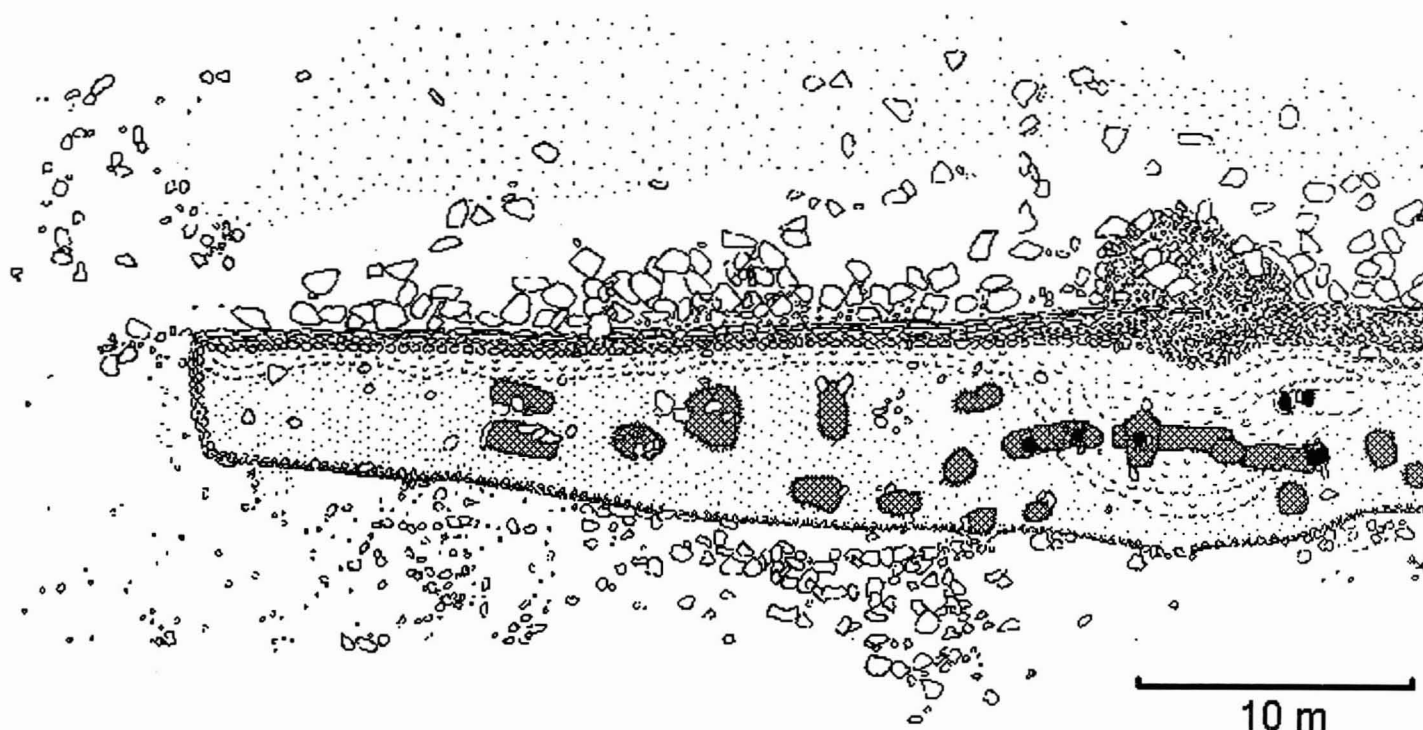


Figure 6. A map looking down on Ahu Kihikihi Rau Mea with the seawall toward the top. North is to the right. The layer of seawall blocks is interrupted by the breakdown rocks (bulge in seawall) and the semi-pyramidal construction immediately to the right of this area.

sions taken in 1980, the *ahu* is nearly 65 m (213 feet) long (see map). If the semi-pyramidal structure completely joined to it on the north end is included, the entire structure is 90 m (295 feet) long. Thomson's dimensions (8 feet 10 inches wide, and 7 feet 5 inches thick) do not seem to apply to Ahu Kihikihi Rau Mea unless one of them is height.

To counter the idea that the Islanders could have built additions after Thomson's visit, it should be remembered that at the time of his visit, the island population was just beginning to recover from a near annihilation by smallpox and tuberculosis. These and other events had, by 1877, reduced the total to about 110 (McCall 1976:61-73). With the population in 1886 approximating 155 individuals, it seems unlikely there was enough manpower or interest to build additional structures on Ahu Kihikihi Rau Mea, or to elongate it *after* Thomson's visit.

Interestingly, Platform No. 8 is also 8 feet wide by 7 feet thick. Thomson mentions four *moai* on the inland side of both Platform No. 8 and No. 9. At best today there are pieces (a body and head) of only one *moai* on Ahu Kihikihi Rau Mea and a number of tiny fragments. There is just enough similarity between Platform 8 and Platform 9 to suggest Thomson mixed his or other's notes over these two. A year of research at the Smithsonian archives in 1981 did not locate his original notes or sketches, only the published photos and sketches. However, this *ahu* is filled with many slab-covered and rocked up tomb structures containing bones that were visible at the time of mapping. Thomson's investigation (excavation?) turned up many obsidian "spear-heads". Figure 4 does show a triangular "pavement", and so also does the modern map show a triangular shaped breakdown of seaward wall rocks, but very much smaller. Could the

sketches accompanying Thomson's report, perhaps by more than one person, have been ill combined? The writer cannot explain his drawing of what looks like cut and fitted stones on the inland side of his Figure 18. They are perfect for a typical *ahu paenga*-bound landward edge. But then he does not include the seaward wall blocks, which are fairly large and impressive and clearly illustrated on the map. But note that the modern map shows no *paenga* on the inland side. Could his cut and fitted stone actually be what we would today call the seaward wall? Kihikihi Rau Mea has only pecked-to-fit stone in the seaward wall, but no inland cut and fitted stone.

Englert (1948) mapped the locations and completed the next most accurate inventory of *ahu*, and in he gives the same name to Ahu 25, Ahu Kihikihi Rau Mea. He measures 347 feet or 106 m for its length, 5 m wide and 3 m high. Although William Mulloy also began an *ahu* inventory, only sketchy notes remain of that endeavor.

Thomson's tombs are probably diagrammatic, but he puts in 30, all within the structure. The modern map also shows 30 tomb areas within the *ahu* structure, with two more outside. Though only the open tombs were examined, the other areas contain possible, probable, and real tombs within the structure, some of them rather long and large and may be multiple intrusive construction events. The interpretation of all this is incomplete, though a rather weak case can be made for the two maps having something in common. The spacing of the burials or tomb areas from the modern map could be interpreted as nearly the spacing of Thomson's, but only if tweaked carefully. But it is a weak case nonetheless.

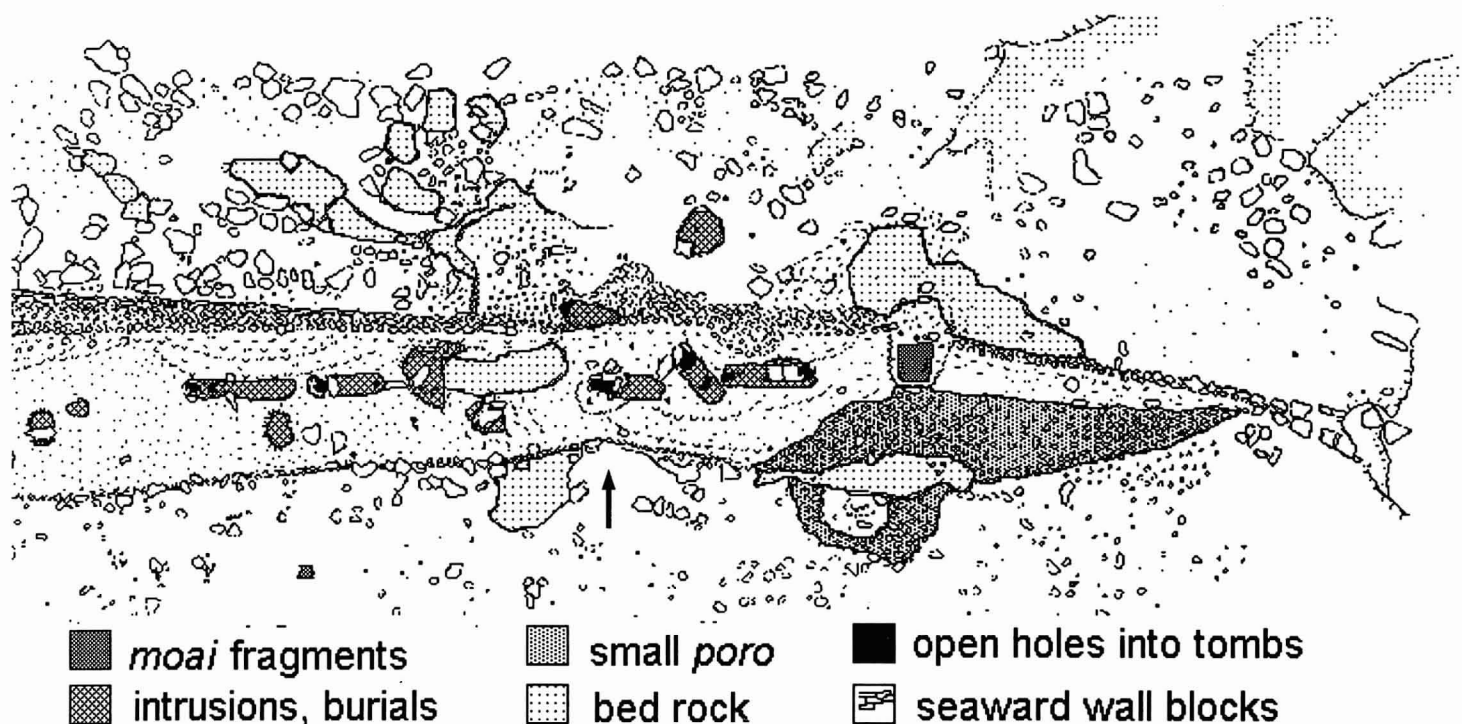


Figure 6. Map of Ahu Kihikihi Rau Mea, continued. The vertical arrow indicates the junction of the two semi-pyramidal *ahu*.

AHU KHIKIHU RAU MEA IN 1980

Ahu Kihikihi Rau Mea is composed of at least three, and possibly four, different structures. It appears to have been first designed as a *moai*-bearing *ahu* with at least one large central platform and possibly a second smaller one. Some of the seaward wall blocks composing the lateral wings of the structure were then torn down, the upper-most course taken off, and some of these blocks recycled into the "new" wings' seaward walls. The bulk of this older structure's surface was then reshaped into one of the largest semi-pyramidal *ahu* on the island, using "one-man-blocks" (blocks small enough for one man to handle) for the rest of the mantle covering and boundaries of the *ahu*. Lastly, a smaller, more typical semi-pyramidal *ahu* adjoined the north end and was oriented at a very slight angle to the original.

However symmetrical the structure is, it was not placed symmetrically in the little swale that occurs in the topography at this location, but appears to crowd the hillside and lava flow from Hiva Hiva to the north. It appears draped over several stair-stepped bedrock surfaces. Had it been placed several tens of meters farther seaward and perhaps 50 meters farther south, it would have been squarely in front of the natural shallow valley whose smooth floor would have served as a natural inland plaza.

The accompanying map (Figure 6) shows the large seaward wall blocks, of what may have been the original *moai*-bearing *ahu* structure. The pattern is not stylized and the number of stacked blocks at any point along the seaward wall can be counted. What could not be shown on the map was the height of each. Could this *ahu* have had an original name of "Anaoraka"? The orientation of this main wall is 2 degrees East of Magnetic North at this location or, NE 16° 45'.

The north end of the *ahu* is resting on land about 3 meters

higher than the south end, though the crest line or axis of the semi-pyramidal structure is roughly symmetric with the horizon when viewed from the inland plaza area. Like classic 30 meter long semi pyramidal *ahu* elsewhere on the island, it has a high central apex whose inland surface is symmetrically convex, not unlike the shape of an alluvial fan. The lateral wings are very smooth surfaced with a neatly placed border of rocks.

The axis, or raised portion of the semi-pyramidal construction that is directly above the seaward wall has been built up by a double line of one-man rocks, which are surprisingly small and mostly range from 20 to 30 cm in diameter. Few reach 40 cm. The south wing rock cover above the original ground surface, ranges from 50 cm thick on the inland border to 70 cm and more on the seaward wall at the south end. If there are interments under this comparatively thin mantle of stones covering the south wing, the burials would probably penetrate the original ground surface. It seems clear that the prehistoric builders valued the form of the semi-pyramidal wing, even if it had no utilitarian purpose, because much of it remains a smooth-surfaced, undisturbed architectural unit. The surface is of smooth and uniform fill, though it is not paved. It is identical in form to the northeast wing of Ahu Tetenga, though slightly smaller and lower.

Several courses of large pecked boulders up to two tons in size make up the line of seaward wall. The whole of the seaward wall construction slopes inland slightly. The lateral sections of the two wings have seen the upper course of the original pecked-to-fit seaward wall boulders knocked off, and then replaced by as many as four courses of stacked one-man-stones. These have been so placed that the axis of the wing forms a smooth concave upward curve from the apex in the *ahu* center to its lowest point at the end of the wing. The axis is punctuated

by a total of seven slightly higher piles, suggestive of the *pipi horeko*, or marks denoting certain ancestors or burials.

The central portion of what appears to have been a buried central platform show huge seaward wall blocks placed in a pecked-to-fit pattern in the manner of a completed *moai*-bearing central platform. However, towards the north and south wings, the construction of the wall changes. The 200 kilo to 2000 kilo seaward wall blocks are carved to fit adjacent stones, but just not the blocks that are there. The seaward wall of both wings is composed of what appears to be recycled blocks. That is, carved stones for some other structure (or some other part of this one) that are now placed roughly to fit each other in the wall, but that originally didn't actually *belong* next to each other. Several long blocks, normally upright in a *moai*-bearing *ahu* or a semi-pyramidal structure, have been laid horizontally as though that portion of the wall had been deliberately reshaped. Curiously, no seaward outset of a *moai*-bearing central platform is visible and had there actually been one, the top of the entire platform would normally have extended inland from 3 to 5 meters. Then, normally, a ramp structure would occupy another 3 to 5 meters inland and descend to the plaza level. Neither of these latter two architectural elements is present or even hinted at. The present *ahu* is simply too narrow. Perhaps the seaward wall of a classic *moai*-bearing *ahu* was under construction when the culture changed to the point that the local district abandoned hope of completing it as intended.

Further examination of the seaward wall construction tentatively shows it to be divided into two segments, a south part to the left, and a northern, smaller segment on the right which has a slight gap in it. The south part is 36 meters (118 feet) long and disappears northward into a conical pile of what appears to have been an old breakdown of the seaward wall. The north part is 14 meters (46 feet) long and generally made of smaller blocks. Seven meters separate the two walls. The south part of the separation is covered by the conical breakdown, but a new seaward wall construction of the semi-pyramidal overbuilding separates the conical breakdown from the northward continuation of the original wall. The breakdown appears to have taken place as a result of instability within the construction of the semi-pyramidal seaward wall, rather than in the original blocks of the apparent *moai*-bearing structure. The apex of this structure would have been 4 meters high from the seaward ground level, yet 2 meters high from the inland border. This suggests that the ground drops away two meters in the 7 meter width of the semi-pyramidal construction, and that the entire structure is draped over a bedrock lip of some sort.

The *ahu* fill exposed at the breakdown show it to be largely semi-pyramidal fill, that is one-man-rocks, rather than fill typical of a central platform, where large boulders are normally placed in a vertical fashion to support the weight of pedestals and statues. Small *poro* are not in the fill, but only on the surface. No obsidian, no soil, and no *moai* fragments were observed in the fill material. The presence of lichens growing over the exposed fill and the breakdown indicates that the breakdown of the wall occurred quite a while ago. The generalized and typical black weathering that takes place on Easter Island basalt has reestablished itself. Typically when these rocks are disturbed or

turned over, they present a gray and fresher appearance for years.

Is the northern segment of the wall (to the right as you face the sea from the inland plaza) a separate central platform wall, with the juncture between the two segments having been filled up? This is not unlike Ahu Vaihu, which has a large quantity of fill between the central platforms and a huge conical pile seaward of that juncture. On the map of Kihikihi Rau Mea, no clear-cut central platform is visible on the surface, though Thomson in his diagram shows it clearly, but probably backwards.

That these two walls are 'mis-fitted' can mean that they were recycled somehow for the original *moai*-bearing *ahu*, or alternatively they were deliberately pulled apart and reassembled for the semi-pyramidal structure. They don't quite align. In either case, these walls were overbuilt by two structures, the larger 65 m (213 feet) semi-pyramidal structure to the south, and the 25 m (82 feet) smaller semi-pyramidal *ahu* to the north. Both are illustrative and in a good state of preservation, though the tombs have been either vandalized, excavated, or both by a generation of tourists and archaeologists alike.

The *ahu* fill visible between seaward wall blocks reveals abundant basalt chips and tiny red scoria fragments, but almost no obsidian, bone fragments, shell, or pebbles. Most likely the basaltic chips are a result of a primary construction episode normally associated with the pecked-to-fit seaward wall blocks of a *moai*-bearing central platform. The abundant red scoria appears to be the Puna Pau variety whose arrival as fill may or may not have something to do with an original red scoria cornice or, remotely, a *moai* topknot. Several square blocks of the red scoria were found seaward of the north wing and below where several wall blocks had been removed. Their structural origin or purpose cannot be determined. However, the lack of obsidian, shell fragments, and pebbles suggest the fill in which the scoria was found, was *not* part of the traditional *hanihoni* associated with human bone fragments normally found in the bone crypts of *moai*-bearing *ahu*.

The ground scatter of similar sized but unpecked boulders immediately seaward of the wall suggests the collection of appropriate building blocks for continued construction of a seaward wall of an *ahu* originally designed to be *moai*-bearing. There seems no natural mechanism to have this many angular boulders erode to this pattern or to accumulate in this area by other means. A great tongue of these boulders extends seaward and it could be that a distorted view of these by Thomson created the sketch of his huge triangle. Regardless, other *ahu* show nearby accumulations of building stones, such as McCoy's 5-72, but the best example of all is that of Ahu Ura Uranga Te Mahina, although the scatter is on the northeast side.

Near the north end of the larger semi-pyramidal *ahu*, a broad flat piece of bedrock has been cleaned of the upper fill and possibly covers a cave beneath. Could this have been less exposed during Thomson's visit and ultimately became his pedestal stone for a statue? It measures 13 feet by 5 feet and was probably very shallowly buried when the wing of this *ahu* was complete. This is the only flat slab within either *ahu* structure that could qualify for Thomson's pedestal dimensions. It is im-

pressive, or even odd, that the prehistoric islanders left such a large, flat, clear surface free of petroglyphs.

The northern semi-pyramidal structure appears to be a later add-on to the larger construction. The seaward wall is made up of entirely small one-man-stones, with a few tantalizing carved blocks at the north end of the north wing. The south wing construction overlaps the north wing of the adjacent *ahu* and is slightly higher, though this may be artificially enhanced by the excavation debris of several tombs. The axis and apex of both the north and the south semi-pyramidal structures is roughly internally symmetrical with the seaward wall in both cases building up from uneven bedrock to a more or less even axis. This means that the seaward wall varies in height from about 1 to 3 meters for both structures. The smaller northern *ahu* varies from a height of several stones at the north end of the right wing to about 3 meters high some 5 meters from the juncture with the southern semi-pyramidal structure. Several caves in the bedrock of the juncture area are suggested by small rock walls and various disturbances in the mantle of stones.

The inland surface of both *ahu* are nearly evenly sloped, although the northern semi-pyramidal *ahu* has a pavement of small *poro*, shown on the map, over part of its surface. These small *poro* are very common over both *ahu*, but because of their size, impossible to map separately. In the examination of both semi-pyramidal *ahu* fill, there are no *poro* within the fill. All are on the surface. Interestingly, small surface *poro* are almost absent on the south wing of the larger structure, but increase in density on the north half, and are most common on the smaller northern semi-pyramidal. As the latest architectural component, their surface distribution could suggest that they were placed in order to facilitate walking in bare feet over the surface of the structures as opposed to scrambling over the rough and less stable angular basaltic fill stones. *Poro* are also used along the axis of the semi-pyramidal structures as markers of *pipi horeko*. Seven faint piles occur along the axis of the larger southern structure. By contrast, small *poro* are used all along the axis of the smaller northern semi-pyramidal *ahu*. Coral fragments are much more common and spread out on the smaller structure, and several large chunks of coral are lying on the ground seaward of the wall of this structure as well.

A circular pavement of small *poro* inland from the smaller *ahu* has sunk 50 centimeters into a hole. The *poro* in the opening are still set in place. Most likely there is a walled cave opening underneath.

The 1.5 m torso of a small *moai* (originally estimated at 3 m) is set down into the *ahu* surface about where the apex of the seaward wall should have been. White lichen has grown over the top of this *moai* as well as on the rocks that are underneath it, attesting to the idea that all of them have been exposed for some time. Recent hammering of the *moai* rock, probably for tourist statuettes, is clearly evident.

The *moai* seems originally to have been buried in the apex of this *ahu*. The apex, however, has since been shifted by the prehistoric excavation of (intrusive) tomb building (or looting) just south of it, the fill stones artificially building up the apex in that area. The head fragment of the *moai*, much eroded and of the same quality of Rano Raraku tuff, may be the block lying 25

meters away in the plaza. Many other fragments, most too small to map, lie just seaward of the wall, often associated with potential tombs. Although Thomson mentions four statues at the time of his visit, these too may have been recycled for carvings to sell to ship's crews and other visitors. There may be other *moai* buried in the semi-pyramidal fill. Certainly the original *moai*-bearing structure(s) was large enough to support a number of statues.

The south wing of this smaller *ahu* is completely disturbed by the insertion of tomb burials. The walls of the tombs are both stacked up and slab-lined. Several have flat tomb covers from possibly recycled but poorly carved *ahu paenga*, the kind that would come from bordering the lower edge of the ramp.

What is impressive on the accompanying map is the lack of *poro* of the size usually accompanying *moai*-bearing *ahu* on the inland slanting ramp. A scattered few are evident. This circumstance could suggest that the construction of the original *moai*-bearing *ahu* had not proceeded to the point of collecting the large numbers of large *poro* that would be found on the finished ramp. Or, their lack could simply imply that the large *poro* became recycled elsewhere, or have been buried in the semi-pyramidal cover along with other construction elements.

No crematory or structured bone crypt seems evident in the expected location seaward of the seaward wall. However, in the area of the potential caves, fragments of what might be the equivalent (a few slabs and some obsidian) are located in the area of the junction between the northern and southern semi-pyramidal structures. Excavation in that area, near the north wing, may yet reveal *hanihoni*. But the overt lack is again suggestive that the original *moai*-bearing structure may not have been in traditional use long, if at all, before semi-pyramidal overbuilding began. Similarly, the best known *ahu* whose construction stopped just before the *moai* were to arrive is Ahu Ura Uranga Te Mahina. This one is especially important because the *ahu* construction sequence is well exposed though interrupted, probably by the cultural collapse. In one section of Ahu Ura Uranga Te Mahina, the seaward wall is complete, the huge vertical statue support boulders are in place ready to accept the composite pedestal stones, but the inland side of the central platform is missing. Ahu Kihikihi Rau Mea seems to have been in a similar situation, but without the vertical statue support boulders yet in place, when it suddenly became reworked and mantled over with stones.

The results, context, and analysis of eleven obsidian samples, taken for the purpose of dating from several locations, will be published later. Most of the samples were taken near the juncture of the two semi-pyramidal structures.

Even though the religious architecture appears to have changed suddenly, the cooperative work force necessary to reassemble a new structure the size of Kihikihi Rau Mea out of a previous construction, seems to have been considerable. This circumstance implies a continued need for large-scale cooperation and that the population was not yet at the level of warfare known historically. By extension Ahu Tetenga, Mahatua, Mai Take Te Moa, Hanga Hahave, and other large rebuilt *moai*-bearing *ahu*, may collectively attest to the continued existence of the large cooperative workforce even though the religious

architecture had changed dramatically. It is possible that the resources needed to build the huge *moai*-bearing platforms began to dwindle, and as they did so, the religious architecture had to scale down.

Ahu Kihikihi Rau Mea may have been designed as an image-bearing *ahu* that was just short of completion of the proposed central platform(s) when the cultural collapse arrived. Like Ahu Vai Uri (Mulloy 1970), a cut and fitted seaward wall could have been partially pulled down and partly reassembled for a large semi-pyramidal structure. What is important is that the district population was large enough, or cooperative enough, so that multi-ton stones could still be moved and roughly fitted for the huge overlying semi-pyramidal structure. This contrasts dramatically with the smaller semi-pyramidal *ahu*, most of whose seaward blocks could be fitted by two people, and therefore required far less cooperation and/or population (Love 1993:105).

Since no *moai* were known to be standing on any of the semi-pyramidal *ahu*, perhaps quarrying new statues intended for *ahu*, and moving them, had ceased, but the large construction work force was still peacefully available for *ahu* conversion. Speculatively, perhaps this was a 50 year transition, whereby the remaining hardwood *toro miro*, used originally for pry bars and rollers and skids, were finally forged into *mata'a*-tipped spears. The resulting chaos ended the cooperative reconstruction efforts of large *ahu*, and the classic smaller semi-pyramidal *ahu* became all that a lineage could afford to assemble under the duress of constant warfare.


REFERENCES

- Bahn, Paul and J. Flenley. 1992. *Easter Island Earth Island*. London: Thames and Hudson.
- Cristino, C., P. Vargas and R. Izaurieta. 1981. *Atlas Arqueológico de Isla de Pasqua*. Santiago: Corporación Toesca.
- Englert, S. 1948. *La Tierra de Hotu Matu'a*. Editorial Universitaria, Santiago.
- Englert, S. 1970. *Island at the Center of the World*. New York: Scribners and Sons.

- Love, C. 1990. The Interpretation of Site 5-72, an Easter Island Ahu. *Rapa Nui Journal* 4 (2): 17-20.
- Love, C. 1993. Easter Island Ahu Revisited. *Easter Island Studies*, Steven Fischer ed. Oxford: Oxbow Monograph 32.
- McCall, G. 1976. *Reaction To Disaster: Continuity and Change in Rapanui Social Organization*. Ph. D. thesis, Australian National University.
- McCoy, P. C. 1973. *Easter Island Settlement Patterns in the Late Pre-historic and Protohistoric*. University Microfilms, Inc., Ann Arbor.
- Métraux, A. 1940. *The Ethnology of Easter Island*. Honolulu: Bernice P. Bishop Museum Bulletin 160.
- Mulloy, W. 1970. *Preliminary Report of the Restoration of Ahu Vai Uri, Easter Island*. Bulletin Two, International Fund for Monuments Inc. Washington, D.C.
- Mulloy, W. 1976. A Preliminary culture-historical research model for Easter Island. Manuscript of paper submitted in September 1976 in Santiago (Chile) at the Symposium "Chile's Oceanic Islands."
- Routledge, K. 1919. *The Mystery of Easter Island*. London: Hazell Watson and Viney.
- Smith, C. 1961. A Temporal Sequence Derived from Certain Ahu. *The Archaeology of Easter Island. Reports of the Norwegian Archaeological Expedition to Easter Island and the East Pacific*, Vol. 1. Monographs of the School of American Research and the Museum of New Mexico.
- Thomson, W. J. 1889. *Te Pito Te Henua, or Easter Island. Report of the US National Museum for the year ending June 30, 1889*. Washington, DC.

SOUTH AMERICAN EXPLORERS CLUB
<http://www.samexplo.org>

The best source for information on South American travel. Member services: expert trip planning, discounts on maps, guidebooks, trips, schools. Also, e-mail, fax, and storage at Clubhouses in Lima, Peru and Quito, Ecuador.

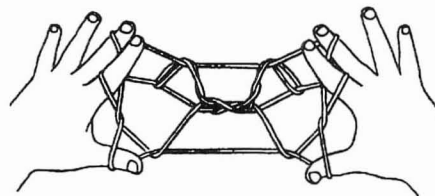


U.S.: 126 Indian Creek Rd., Ithaca, NY 14850. Tel: (607) 277-0488, Fax: (607) 277-6122, E-mail: explorer@samexplo.org

Lima, Peru: Av. Republica de Portugal 146, Breaña. Tel/Fax: (511) 425-0142

Quito, Ecuador: Jorge Washington 311 y Leonidas Plaza, Mariscal Sucre. Tel/Fax: 593-2-225-228

INTERNATIONAL STRING FIGURE ASSOCIATION



E Kuha, E Rati

On Easter Island string figures are known as *kaikai*. Each year during the *Tapati* festival participants in the *kaikai* contest attempt to weave the

island's traditional designs and recite the ancient chants that accompany them, all with great style and charm.

The International String Figure Association was founded in 1978 to gather and preserve string figures from around the world. Members receive our annual *Bulletin* (200-page book), quarterly magazine, and semi-annual newsletter.

\$25 annually • Visa/MC accepted
International String Figure Association
P.O. Box 5134, Pasadena, California 91117 USA
www.isfa.org/~webweavers/isfa.htm